

BICYCLE SEAT

The present invention relates to a bicycle saddle consisting of two separated support portions, each one for supporting one of the bicycle rider's seat bones, (upper femur), the two support portions being mounted on a joint bar, which is arranged perpendicular to the central plane of the bicycle.

Bicycle seats of this kind are known from e.g. US 4 387 925 and WO 00/09386.

The object of the present invention is to reach to such a design of the bicycle seat that the support portions of the seat will follow the movement of the seat bones when the rider's thigh bones move up and down, that is to say when the rider pedals his bicycle. The movement of the seat bone is three-dimensional, thus forward in the direction of the movement of the bicycle, sideways and downwards. The specific object of the present invention in relation to the known art is to design a bicycle seat which is very comfortable and includes as few movable parts as possible and is adjustable to the bodily constructional part of the rider.

An embodiment of the invention will be described in the following with reference to enclosed drawings.

Fig. 1 is a perspective view of the bicycle seat seen from above from the front.

Fig. 2 is a perspective view of the bicycle seat seen from below from behind.

With reference to fig. 1 it is seen that the bicycle seat consists of two support portions 1 and 2, which are arranged on a transversal mounting bar 3, which on its part is supported by a pool 4, which forms a part of the bicycle frame. The two
5 support portions 1 and 2 can be displaced sideways on the bar 3 in relation to each other by being mounted each on a separate socket, which is slidable and rotatable on the bar and can be fastened by a handle 5. That means that the inclination of the support portions in relation to the horizontal plane
10 can be adjusted and fixed by the handle 5. The two support portions 1 and 2 shall be fixed in relation to the bar 3 when the bicycle seat is used meaning that the two support portions shall not be able to tip or being displaced sideways. The bar 3 can be mounted to the pool 4 in different ways known per se
15 and does therefore not form a part of the invention.

It can further be seen from fig. 1 that the surface form of the support portions is such that they are wider at the forward edge than at the back edge. Further, it can be seen that
20 the forward edge is round in order to give good comfort.

The advantage of the invention is now that each one of the support portions will meet and follow the movement of the seat bone without tipping or moving in some other way. Each of the
25 support portions is therefore designed according to the following. The support portions consist mainly of three super imposed layers. The undermost one of the layers is a bottom plate 6, which can be fixed non turnable on the mounting bar 3, that is to say the bottom plate can not tip forward or
30 backwards when fixed. The bottom plate 6 is suitably made from stiff sheet-metal. A second layer in the form of a cushion 7 is fastened to the bottom plate 6, the cushion being elastic in all directions. The elasticity of the cushion 7 shall be

such that it is never totally compressed when being loaded by the rider but shall follow the movement of the rider's seat bone, which movement thus is as well known downwards and somewhat sideways, which taken together obliquely downwards and sideways. This movement is largest at the forward end of the support portion. The thickness of the cushion in this area is previously about 10 cm and the hardness is between 5-70 Shore A. As can be seen from fig. 1 the thickness of the cushion is decreasing in the backward direction.

A third layer 8 is laid upon the cushion, which layer 8 is stiff in all directions in its plane. However, it should be observed that fig. 1 and 2 show an intermediate layer 9 in the form of foamed plastic but this layer is not necessary in order to achieve the desirable effect but is something which may improve the comfort. It should be noted that the three layers, the bottom plate 6, the cushion 7 and the upper layer 8 are united with each other via meeting surfaces by using some sort of adhesive means. The layers should not be able to slide in relation to each other.

Within the scope of the invention there are other embodiments than the above described and this concerns specifically the bottom plate and the upper layer 8. The bottom layer shall be stiff and thus suitably formed from metal. The uppermost layer 8 can be of woven fabric, leather or even thin metal plate. The elasticity of the cushion can be varied according to the rider's weight but should be so dimensioned that it can stand the weight of the person without being completely compressed when the rider pedals the bicycle.